



# MOTOROLA SOLUTIONS SERVES UP A SCALABLE MOTOTRBO™ CAPACITY MAX SYSTEM AT WIMBLEDON

TO DELIVER FAILSAFE COMMUNICATIONS AND ENHANCED FUNCTIONALITY: FOR THE CHAMPIONSHIPS AND ALL YEAR ROUND



## THE ALL ENGLAND LAWN TENNIS CLUB (AELTC)

The All England Lawn Tennis Club is a private members' club based at Church Road, Wimbledon, London, with two further sites at Raynes Park and Roehampton and over fifty courts in total. It is best known as the venue for The Championships, Wimbledon, which were first organised in 1877 and are the only Grand Slam tennis event still held on grass. The day-to-day operations of The Championships are led and conducted by the AELTC. The fortnight-long tournament begins in early July and is recognised as one of the most glamorous sporting events of the British summer. Strawberries and cream, anyone?



## CHALLENGE

The AELTC previously had a MOTOTRBO Capacity Plus system, but needed greater capacity, especially during The Championships, to assure a 100% successful first-time call rate. It wanted to maintain the reliability and security of the MOTOTRBO infrastructure, whilst moving to a more flexible, multi-site solution, which could be easily scaled up to meet the demanding requirements of The Championships. Unified communications specialist Servicom, who is a long-term partner of both the AELTC and Motorola Solutions, reviewed the AELTC's ongoing day-to-day communications needs, as well as its requirements relating to integrated systems, enhanced functionality, redundancy and ease of scalability; it proposed an upgrade to a MOTOTRBO UHF Capacity Max system at the three sites.

## CUSTOMER PROFILE

**Organisation:**  
The All England Lawn Tennis Club (AELTC)

**Partner:**  
Servicom

**Industry:**  
Sports & Leisure

**Location:**  
London, UK

## Products:

- MOTOTRBO UHF Capacity Max system comprising:
- Capacity Max System Servers (CMSS)
- MOTOTRBO SLR 5500 Repeaters
- MOTOTRBO DM4600 Mobile Two-Way Radios used as base stations
- MOTOTRBO DP4801e and DP4601e Portable Two-Way radios
- MOTOTRBO SL4010e Smart Two-Way radios



## CASE STUDY

THE ALL ENGLAND LAWN TENNIS CLUB (AELTC)

## SOLUTION

Servicom has installed 12 MOTOTRBO SLR 5500 repeaters at the principal Church Road site, giving 23 simultaneous call paths, as well as a dedicated control channel; the Roehampton location, meanwhile, has 4 further repeaters and Raynes Park 3, for 7 and 5 concurrent call paths respectively; and, although the existing frequencies were used, Servicom also had to obtain new licenses for the AELTC to accommodate the growing number of radios deployed every year at The Championships, especially as London has one of the most heavily congested radio spectrums in the world. The infrastructure is placed away from the public eye, much of it underground, and Servicom uses the MOTOTRBO Radio Management Software to configure the infrastructure and radios, as well as to send out any updates or ad-hoc changes where needed to both the radios, via OTAP, and to the repeaters, over the network, all within the specified SLAs. This type of access allows Servicom to achieve 24/7 support, beyond the two full maintenance inspections it carries out annually.

On a day to day basis the AELTC uses approximately 200 radios over 40 talk groups, from security to tours, cleaning, grounds staff and maintenance staff, for example; and the system is set up to provide different access and permissions for users, sites and groups. For instance, one user could be set up to access one talk group on a single site, whereas an operations manager could have access to all relevant talk groups across the three sites. During The Championships a further 1200, or more, radios are deployed and over 60 additional talk groups are set up, in line with that year's constantly evolving fleet map, which also involves a total re-configuration of some radios used year round to link them with new user groups. These additional radios are supplied by Servicom on a managed service basis, with Servicom providing training to any new staff deployed for the Championships. The infrastructure, however, does not need to be changed in any way, as it was built with the tournament in mind and provides sufficient capacity for the two weeks of extremely heavy usage and the gradual build up to event, in the months beforehand.

As communications are critical for the AELTC, especially during The Championships, it asked Servicom to install a hot standby, duplicate system comprising a further 12 repeaters at a secondary location, with its own automated power backup. The redundant Capacity Max system servers (CMSS), geographically isolated for resilience, are constantly communicating with all elements in the system and, should an issue arise with any part of the main system, they detect this and there is an automatic failover to the equivalent device on the duplicate system. Servicom also installed an extended Distributed Antenna System (DAS) with dual optic feeds to ensure a strong radio signal in underground areas and areas of high interference; and it is installed in such a way that the enhancers are dual fed from the main and duplicate redundant system so, if this latter becomes active, there is no loss of coverage. The AELTC's two remote sites will also continue to operate as stand-alone networks, should either of the link-backs to the main radio site at Church Road fail.

Efficient command and control are also key to the success of The Championships, which is why the AELTC has deployed TRBOnet PLUS. Using TRBOnet Dispatcher, controllers can centrally monitor communications, allow calls to any radio user group and merge talk groups, when needed. All calls are recorded and there is a built-in reporting module. Benefitting from TRBOnet's flexible configuration, the AELTC's fire system has also been integrated with TRBOnet to allow for fire and alert messages to be sent to relevant facility management teams. The system is comprised of two manned dispatcher consoles within the Central Control Room for incident and issue management, with a failover to a third dispatcher, for added resilience, located in a failover control room.

## BENEFITS

With the eyes of the world on the Championships, the AELTC requires a fully resilient system, with an emphasis on quality of service and attention to detail. The bespoke, scalable MOTOTRBO system installed by Servicom does just that; and the ongoing system support provided by Servicom coupled with the MOTOTRBO Enhanced Warranty with Repair ensures maximum system and hardware uptime and good ROI. The system not only delivers failsafe, crystal-clear and secure group and individual communications for the AELTC, it also enables onsite processes and procedures to be executed effectively and efficiently; for example the radio network is connected to the irrigation system, allowing watering of the courts to be triggered and controlled directly from some radios. All this directly contributes to the smooth operational running of the sites and the safety of visitors.

Moving forward, the AELTC will continue to investigate other ways of maximising the potential of its MOTOTRBO Capacity Max system; it is currently looking into features such as GPS tracking and Lone Worker and integrated solutions like the Motorola Solutions WAVE PTX™ mobile app, to allow off-site staff the possibility to still communicate directly on their talk groups. Via TRBOnet's alarm management function, the AELTC could also link its IP cameras to the location that is specified on the output from the fire panel, for example, so controllers can have a visual account. The possibilities are numerous and varied and, working in close collaboration, Servicom and the AELTC will continue to serve up innovations and efficiencies at Wimbledon.



## Products Continued:

- Accessories such as IMPRES™ batteries and single and multi-unit chargers
- MOTOTRBO Radio Management Software
- TRBOnet PLUS control room software
- MOTOTRBO Enhanced Warranty with Repair

## Applications:

- Integration with data management and fire alarm systems
- Feature rich voice and data for over 40 user groups year-round, increasing to 100 user groups during The Championships
- Encrypted private calls and data messages
- Remote monitoring of radio system, network and applications
- Remote radio Over-The-Air Programming (OTAP)

## Benefits:

- The flexible, easily scalable system meets the AELTC's fluid requirements, such as the increased demand during The Championships and long-term business growth plans
- The secure, high-performance system also provides seamless interconnectivity between the 3 sites and integration with other systems, to ensure added value and optimal usage
- Having installed a dual redundant system with optical DAS, remote monitoring and syncing, the AELTC knows it has failsafe communications and full coverage across its 3 sites
- Increased functionality with elements such as multiple user groups, encrypted private calls and traffic monitoring enabling more efficient working and enhancing health and safety
- The ongoing system support provided by Servicom coupled with the MOTOTRBO Enhanced Warranty with Repair ensures maximum system and hardware uptime and, subsequently, good ROI

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